

**In the Claims:**

1. (Currently Amended) A method for creating a database for carrying out a technical simulation, comprising the steps of:

a) determining at least a first and second variable within a technical application representing a physical or technical value, respectively;

ba) providing a first vector model ~~defining~~ comprising a plurality of first points~~nodes~~, which are subjected to ~~the~~ a first entity~~variable~~,

b) ~~and defining~~ second points~~nodes~~, with a ~~the~~ second entity~~variable~~ as the output variable, the second points~~nodes~~ being subdivided into a first subset and a second subset, and the second points~~nodes~~ of the first subset being also subjected to the first entity~~variable~~,

c) determining the transfer functions between one of the first points~~nodes~~ and one of the second points~~nodes~~ in each case, by a first simulation program,

d) storing a first matrix with the transfer functions between the first points~~nodes~~ and the second points~~nodes~~ of the first subset and storing of a second matrix with the transfer functions between the first points~~nodes~~ and the second points~~nodes~~ of the second subset, and

e) repeating steps a to d with regard to the second entity~~variable~~ and a third entity~~variable~~, by a second simulation program.

2. (Currently Amended) The method as claimed in claim 1, further comprising:

a) ~~accessing~~ loading the first matrix and the second matrix,

b) linking up of the first matrix and the second matrix for linking up the underlying vector models, and

c) storing the linked-up first and second matrices as a system model.

3. (Original) A simulation method comprising:

a) loading of a system model from a database created by a method as claimed in claim 2,

b) initialization of the simulation,

c) calculating the simulation with boundary conditions taken into consideration,

and

d) storing of the simulation results.

4. (Original) A simulation method as claimed in claim 3, in which the system model comprises only the first matrix.

5. (Original) A simulation method as claimed in claim 3, in which the system model comprises the linking up of at least the first matrix and the second matrix.

6. (Original) A method for presenting the results of a simulation comprising:

- a) loading results of a simulation method as claimed in claim 3,
- b) expanding of the results, and
- c) generating graphic output of the results.

7. (Original) A computer program product on a computer-readable medium with computer-readable instructions for carrying out a method as claimed in claim 1.

8. (Original) A computer system programmed to perform the steps as claimed in claim 1.

9. (NEW) A system for creating a database for carrying out a technical simulation, comprising:

- means for determining at least a first and second variable within a technical application representing a physical or technical value, respectively;

- means for providing a first vector model comprising a plurality of first nodes, which are subjected to the first variable, and second nodes, with the second variable as the output variable, the second nodes being subdivided into a first subset and a second subset, and the second nodes of the first subset being also subjected to the first variable,

- a simulation program for determining the transfer functions between one of the first nodes and one of the second nodes in each case,

- means for storing a first matrix with the transfer functions between the first nodes and the second nodes of the first subset and storing of a second matrix with the transfer functions between the first nodes and the second nodes of the second subset.

10. (NEW) The system as claimed in claim 9, further comprising:

- means for loading the first matrix and the second matrix,
- means for linking up of the first matrix and the second matrix for linking up the underlying vector models, and
- means for storing the linked-up first and second matrices as a system model.

11. (NEW) The system as in claim 10, further comprising:

- means for loading of the system model from a database,
- initialization means for performing of the simulation,
- means for calculating the simulation with boundary conditions taken into consideration, and
- means for storing of the simulation results.

12. (NEW) The system as claimed in claim 11, in which the system model comprises only the first matrix.

13. (NEW) The system as claimed in claim 11, in which the system model comprises the linking up of at least the first matrix and the second matrix.

14. (NEW) The system as claimed in claim 11, further comprising:

- means for loading of the simulation results,
- means for expanding of the results, and
- means for generating graphic output of the results.